

REMARKS

Reconsideration of the above-identified application in view of the amendment above and the remarks below is respectfully requested.

No claims have been canceled or added in this paper. Claims 1, 7, 17 and 18 have been amended in this paper. Therefore, claims 1, 6-7, 9-15 and 17-20 are pending and are under active consideration.

Claims 1, 6, 7, 9-15 and 17-20 stand rejected under 35 U.S.C. 112, second paragraph, “as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” In support of the rejection, the Patent Office states the following:

A) These claims are confusing because “the DNA strand” in claims 1, 17, and 18 lacks proper antecedent basis. Correction is required.

B) These claims are confusing because “the uncleaved DNA” in claims 1, 17, and 18 lacks proper antecedent basis. Correction is required.

C) Claim 7 is further confusing because the further limitation requires that oligonucleotides utilized in step b) are also utilized as primers or probes in a later amplification step, but claim 1 requires that steps b) through d), which include amplification, are conducted simultaneously. As this creates a contradiction, correction is required.

D) Claims 17 and 18 are further confusing because “the DNA to be investigated” and “the background DNA” lack proper antecedent basis. Correction is required.

Applicants respectfully traverse the subject rejection. With respect to the first ground in support of the rejection, namely, the alleged lack of antecedent basis for “the DNA strand” in step (c)

of claims 1, 17 and 18, Applicants note that the expression “the DNA strand” has been replaced with the expression “the converted DNA strand.” Applicants respectfully submit that the introduction of the word “converted” into the expression in question obviates this ground of the rejection as the entire claim refers to exactly three types of DNA molecules, namely, (i) oligonucleotides and converted DNA to be investigated that forms either (ii) correctly or (iii) erroneously paired hybrids with said oligonucleotides. Step (c) of the objected claims now refers to “cleaving the converted DNA strand of the erroneously paired hybrids,” and it is clear that the strand to be cleaved represents bisulfite-converted background DNA that has formed erroneous base pairings with the applied oligonucleotides. Consequently, Applicants respectfully submit that the scope of the language in question is readily ascertainable to those of ordinary skill in the art.

With respect to the second ground in support of the rejection, namely, the alleged lack of antecedent basis for “the uncleaved DNA” in step (d) of claims 1, 17, and 18, Applicants note that the expression “the uncleaved DNA” has been replaced with the expression “the uncleaved converted DNA.” As explained above, the subject claims refer to exactly three types of DNA molecules, namely, (i) oligonucleotides and converted DNA to be investigated that forms either (ii) correctly or (iii) erroneously paired hybrids with said oligonucleotides. According to step (c), only those DNA strands are cleaved that erroneously hybridize with the applied oligonucleotides. Therefore, it is clear that the term “uncleaved converted DNA” is directed at DNA molecules that correctly hybridize with the oligonucleotides. Consequently, Applicants respectfully submit that the scope of the language in question is readily ascertainable to those of ordinary skill in the art.

With respect to the third ground in support of the rejection, namely, the alleged inconsistency of claim 7 with claim 1 due to the recitation in claim 7 of the “later amplification step,” Applicants respectfully submit that this ground has been obviated by the amendment of this claim in this paper to no longer recite “later.” This amendment finds support in the present specification, for example, on page 21, lines 17-19.

With respect to the fourth ground in support of the rejection, namely, the alleged lack of antecedent basis for “the DNA to be investigated” and “the background DNA” in claims 17 and 18, Applicants have amended the preambles of claims 17 and 18 to provide clear antecedent basis for the language in question. In view of these amendments, “the DNA to be investigated” clearly refers to the methylated DNA in the preamble, and “the background DNA” is clearly defined as “DNA of the same sequence but another methylation pattern.” Consequently, Applicants respectfully submit that the scope of the language in question is readily ascertainable to those of ordinary skill in the art.

Accordingly, for at least the above reasons, the subject rejection should be withdrawn.

Applicants duly note the Patent Office’s acknowledgment in the outstanding Office Action that “[c]laims 1, 6, 7, 9-15, and 17-20 are free of the prior art.”

In conclusion, it is respectfully submitted that the present application is now in condition for allowance. Prompt and favorable action is earnestly solicited.

If there are any fees due in connection with the filing of this paper that are not accounted for, the Examiner is authorized to charge the fees to our Deposit Account No. 11-1755. If a fee is

required for an extension of time under 37 C.F.R. 1.136 that is not accounted for already, such an extension of time is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 30, 2009

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